



CHRIS UPCHURCH

Research Scientist

CARBON SOLUTIONS LLC

PROFILE

Dr. Christopher Upchurch is a research scientist with a background in transportation geography, network analysis, and geographic information science. He's done research on locating hydrogen refueling stations, planning light rail systems, urban mobility, and using big data to analyze transportation system performance.

CONTACT INFORMATION

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CARBON SOLUTIONS LLC Website:

www.carbonsolutionsllc.com/

EDUCATION & TRAINING

Ph.D. | Geography

[University of Utah](#) | 2005–2009

M.A. | Geography

[Arizona State University](#) | 2003–2005

B.Sc. | Geography

[Arizona State University](#) | 2000–2003

PROFESSIONAL EXPERIENCE

Research Scientist | [CARBON SOLUTIONS LLC](#) | 2022–Present

Developed software for analyzing the optimal location of carbon capture, transport, and storage.

Technical Project Manager | [Mid-America Regional Council](#) | 2021–2022

Managed the performance-based planning program, worked to set targets for carbon emissions, and wrote software to analyze massive transportation datasets.

Principal Planner | [Wichita Area Metropolitan Planning Organization](#) | 2014–2020

Led the development of the new long-range Metropolitan Transportation Plan, developed the performance-based planning program, and ran project selection processes for over \$200 million in federal funding.

Assistant Professor | [University of South Carolina](#) | 2008–2012

Taught courses in Geographic Information Systems, quantitative methods, spatial programming, spatial databases, and transportation.

SELECTED PUBLICATIONS

Christopher Upchurch and Michael Kuby Evaluating light rail sketch planning: actual versus predicted station boardings in Phoenix. *Transportation*, Vol. 41 No. 1, pp. 173-192, 2014.

Christopher Upchurch and Michael Kuby. Comparing the p-median and flow refueling models for locating alternative-fuel stations. *Journal of Transport Geography*, Vol. 18 No. 6, pp. 750-758, 2010.

Christopher Upchurch, Michael Kuby, and Seow Lim. A Model for Location of Capacitated Alternative-Fuel Stations, *Geographical Analysis*, Vol. 41 No. 1, pp. 85-106, 2009.

Michael Kuby, Seow Lim and Christopher Upchurch. Dispersion of Nodes Added to a Network. *Geographical Analysis*, Vol. 37 No. 4, pp. 383-409, 2005.

Christopher Upchurch, Michael Kuby, Michael Zoldak and Anthony Barranda. Using GIS to Generate Mutually Exclusive Service Areas Linking Travel On and Off a Network. *Journal of Transport Geography*, Vol. 12 No. 1, pp. 13-22, 2004.

Michael Kuby, Anthony Barranda and Christopher Upchurch. Factors Influencing Light Rail Station Boardings in the United States. *Transportation Research-A*, Vol. 38 No. 3, pp. 223-247, 2004.